

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**ORDER NO. R9-2004-0295**

**TENTATIVE WASTE DISCHARGE REQUIREMENTS  
FOR THE  
PORT OF SAN DIEGO  
CAMPBELL SHIPYARD BAY SEDIMENT CAP  
CLOSURE AND POST CLOSURE MAINTENANCE  
SAN DIEGO BAY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On May 24, 1995, the Regional Board Executive Officer issued Cleanup and Abatement Order (CAO) No. 95-21 to Campbell Industries and Marine Construction and Design Company Holdings, Inc establishing cleanup levels at the Campbell Shipyard for upland soils, groundwater, and offshore bay sediments adjacent to the Campbell Shipyard wharves and boat ways. Cleanup and Abatement Order No. 95-21 required the clean up of approximately 17,000 cubic yards (cy) of contaminated bay sediment containing elevated concentrations of polychlorinated biphenyls (PCBs), copper, zinc, lead, tributyltin (TBT), polynuclear aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons that have accumulated at the former Campbell Shipyard waterside leasehold in Central San Diego Bay sediments over the years. Addenda Nos. 1 and 2 to Cleanup and Abatement Order No. 95-21 were issued by the Regional Board Executive Officer to establish additional sampling requirements, to establish a cleanup level and time schedule, and to extend the time schedule. Additional characterization undertaken in 1999 indicated that approximately 180,000 cy of contaminated sediment would require cleanup for compliance with CAO 95-21. Addendum No. 3 added the Port of San Diego (Port) as a responsible party identified in Order No. 95-21 (and addenda thereto) and changed the title of the Order to reflect that modification. On February 21, 2001, the Regional Board adopted Resolution No. 2001-45 rescinding Addendum No.3 to Order No. 95-21 as a result of the Port entering into an agreement with the Regional Board, in February 2001, wherein the Port agreed to conduct the cleanup. A new Addendum No. 3 was issued June 15, 2001, concerning soil and groundwater contamination at the former shipyard. Currently, shipyard operations have ceased and existing structures have been removed and demolished.
2. Directive No. 3 of Cleanup and abatement Order No. 95-21 established the following concentration limits for bay sediments located within the offshore leasehold at the former Campbell Shipyard:

CONSTITUENT	BAY SEDIMENT (mg/kg) DRY WEIGHT
Copper	810
Zinc	820

Lead	231
Tributyltin (TBT)	5.75
High Molecular Weight Polyaromatic Hydrocarbons (HPAH)	44
Polychlorinated biphenyls (PCBs)	0.95
Total Petroleum Hydrocarbons (TPH)	4,300

3. On March 25, 2002, the Port submitted a report entitled “Interim Technical Memorandum Sediment Remediation Alternatives Evaluation Former Campbell Shipyard, San Diego, California”. The report described several remedial alternatives using technical effectiveness, implementability, environmental effects/habitat impacts, and estimated costs as evaluation criteria. The report selected capping in place as the preferred remedial alternative for contaminated sediments at the site. Additionally, the report describes a proposed transient marina with 20 to 30 slips, floating dock, and a hotel dock to be constructed over the engineered cap in the future. The marina and docks are not part of the remediation project to be conducted by the Port but are included to allow for an analysis of cumulative impacts.
4. On July 30, 2004, the Port submitted a report entitled “60% Basis of Design Report.” The report describes the 9.2 acres remediation project to be conducted on the former 12.9- acre leasehold area, formerly occupied by the Campbell Shipyard, and extends along about 1,200 linear feet of shoreline. The project will consist of dredging 35,900 cubic yards of sediment, creation of 1.6 acre of shallow subtidal habitat, demolition of the existing shipways and marine rails, retrofitting an existing mole pier, repair and reconstruction of 1,230 feet of existing seawall, and placement of rock revetment in front of the existing seawall, ~~potential construction of a 90-foot wave attenuation panel to protect the shallow subtidal habitat area, and extension of a storm drain.~~
5. The site is located approximately 4,000 feet to the southwest of the Rose Canyon fault zone. The active Spanish Bight fault, a fault strand within the Rose Canyon zone, has been inferred to be within 1,320 feet of the site. Other recognized active faults include the Coronado Banks fault system about 11 miles to the southwest and the Elsinore fault system about 42 miles to the northeast. No large earthquakes have been associated with the Rose Canyon fault during historic times.
6. The cap system must be monitored, maintained, and repaired in future years to ensure that the contaminants of concern (COCs) continue to be contained by the cap and water quality standards are not adversely affected. The Port must provide assurances of financial responsibility to ensure that funds are available to maintain, monitor, and repair the cap in future years in the event that the Port fails or refuses to respond in meeting obligations associated with the cap.
7. This Order is based on (1) the federal Clean Water Act, (2) the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000);

~~(3) applicable state regulations; (4) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the Water Quality Control Plan for the San Diego Basin (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (5) all applicable State Water Board policies, including State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California). The Water Quality Control Plan, San Diego Basin (9) (Basin Plan) was adopted by the Regional Board on September 8, 1994 and subsequently approved by the State Water Resource Control Board (State Board) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board. The Basin Plan designates beneficial uses and narrative and numerical water quality objectives, and prohibitions, which are applicable to the discharges, regulated under this Order.~~

~~The Basin Plan identifies the following beneficial uses of San Diego Bay to be protected:~~

- ~~a. Industrial service supply~~
- ~~b. Navigation~~
- ~~c. Contact water recreation~~
- ~~d. Noncontact water recreation~~
- ~~e. Commercial and sport fishing~~
- ~~f. Preservation of biological habitats of special significance~~
- ~~g. Estuarine habitat~~
- ~~h. Wildlife habitat~~
- ~~i. Rare, threatened, or endangered species~~
- ~~j. Marine habitat~~
- ~~k. Migration of aquatic organisms~~
- ~~l. Shellfish harvesting~~

## **DREDGING**

8. Dredging will be accomplished by mechanical clamshell bucket. ~~The clamshell bucket dredging method will cause some turbidity problem at the dredging site. A silt curtain is a common and effective method to control turbidity at dredging sites. Absent of a silt curtain, the turbidity plume at the dredging site caused by clamshell bucket may be extensive and may cause or threaten to cause conditions of nuisance and/or pollution.~~ -To minimize turbidity outside of the project site, the Port proposes to use double silt curtains, comprised of a geotextile fabric supported by a floatation boom, surrounding the dredging area.
9. The method for dewatering dredge sediment includes sediment settling in the barge, decanting the supernatant water from the barge on-site with hoses ~~behind the double silt curtains~~, addition of an appropriate amount of Type II Portland cement slurry to bind the free water in the sediment, re-handling at a designated stockpile area at the Tenth Avenue Marine Terminal, and loading into trucks for transportation and disposal at the Otay Landfill. ~~Decanting the supernatant water from the barge on-site with hoses may increase~~

the turbidity of the receiving water, and a silt curtain is an effective method to minimize the turbidity plume of the returned water.

10. With the exception of approximately 1,000 cy, the sediment has been profiled as California non-hazardous waste and will be disposed of at one or more landfill(s) that are properly permitted under Federal and applicable State requirements. Approximately 1,000 cy of contaminated sediment from the shipways area, impacted by a limited extend of petroleum hydrocarbon free product and PCB, is presently being assessed and may be characterized as hazardous waste, which will be disposed of at a facility permitted to receive such waste.
11. Dredging and the disposal of dredged spoils may cause turbidity, dissolved oxygen depletion, and impact other physical, chemical, and biological parameters in the receiving waters.
- ~~12. Dredging and disposal of dredged sediment as regulated by this Order is consistent with State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California, and with the Water Quality Control Plan, San Diego Basin.~~
- ~~12.~~ There is the potential for the introduction of pollutants from two urban runoff discharge points located in the vicinity of the former Campbell Shipyard: a 30-inch storm drain with an outfall to San Diego Bay, located north of the existing shipway and northwest of the habitat cap, and an urban stream (Switzer Creek) with an outfall to San Diego Bay located in front of the Tenth Avenue Marine Terminal (TAMT). Sediment samples collected from Switzer Creek contained significant concentrations of total petroleum hydrocarbons, lead, organochlorine pesticides, PCBs and polynuclear aromatic hydrocarbons (PAHs). Continued discharge of urban runoff and/or re-suspension of ~~contaminated~~ bay sediments that contain pollutants could result in ~~contamination of~~ deposition of wastes on the engineered cap that probably will be discharged to waters of San Diego Bay and cause or threaten to cause conditions of pollution.
- ~~14.~~ On February 21, 2000, the Regional Board adopted waste discharge requirement Order No. 2000-48, which establishes requirements for the Port to dredge and disposal of up to 30,000 cubic yards of sediment at the site of Campbell Industries. However, the Port has not performed dredging operations under this Order

## CAP DESIGN

- ~~14~~15. The ~~Report of Waste Discharge includes consideration of the Port considered~~ following factors in developing the design of the cap isolation of existing pollutants in bay sediments, potential short and long-term water quality impacts from consolidation of sediments, impacts from hydrodynamic factors (i.e., action by waves, tidal currents, propeller wash from operations at the TAMT and recreational boats); bioturbation, geotechnical aspects (i.e., bearing capacity of sediments, settlement), and stability of the

cap under forces generated by seismic events (i.e., liquefaction and spreading).

~~1516.~~ The cap system is comprised of two design elements:

- A. Engineered cap: The largest area of the cap will be comprised of the engineered cap designed for permanent isolation of environmental pollutants in bay sediments. The engineered cap is comprised of a geotextile overlain by two feet of sand for isolation of pollutants in existing sediments; a layer comprised of one foot of well graded gravelly aggregate material to act as a ~~filter~~ filter layer between the overlying armor stone and the underlying sand, while also protecting against bioturbation, and a final layer of two feet of armoring stone to protect against erosive forces that may be imposed upon the cap. Additional foundation support, in selected areas overlying unconsolidated bay sediments at the edge of the cap, will be strengthened by construction of a "dumped rock foundation."
- B. Habitat cap: The habitat cap will be comprised of 1.6-acre of eelgrass habitat area. The design of the habitat cap includes a base layer of sand overlain by a geotextile layer, ~~a one foot layer of well graded gravelly aggregate material to act as a protective layer for the geotextile~~, and a final layer of two feet of poorly-graded sediments with grains sizes ranging from medium to coarse sand to provide a suitable substrate for to support the overlying eelgrass habitat. The function of the geotextile layer is to help isolate any underlying residual environmental pollutants and protect against bioturbation into the underlying sediment.

Other structural elements, including a containment ~~rock berm and potential wave attenuation panel are proposed~~ to protect and/or enhance the stability of the cap system.

~~16.~~ ~~The engineered cap is intended to provide effective and permanent isolation of environmental pollutants above the following concentrations in bay sediments:~~

~~1617.~~ ~~The Port proposes to design, construct, and maintain the offshore engineered cap system to provide effective and permanent isolation of residual shipyard wastes and to prevent environmental pollutants from exceeding the following concentrations in bay sediments:~~

Contaminant of Concern	Concentration (mg/kg) Dry Weight
Copper	264
Lead	88
Zinc	410

Waste Discharge Requirements for  
Sediment Cap, Campbell Shipyard**TENTATIVE**

Total Polyaromatic Hydrocarbons (TPAHs)	3.47
Polychlorinated biphenyls (PCBs)	0.11
Total Petroleum Hydrocarbons (TPH)	<14
Tributyltin (TBT)	0.121

The sediment concentrations of the contaminants of concern (COCs) specified above are consistent with the sediment cleanup levels (in Finding No. 2 of this Order) established by Cleanup and Abatement Order No. 95-21 and addenda thereto.

- ~~17. The Port shall establish and maintain financial assurances in the amount of \$21,589,000. The financial assurances shall cover the costs estimated for closure, post-closure maintenance, and corrective actions for foreseeable releases from the following the offshore waste management at the former Campbell Shipyard:~~

<b>TASK</b>	<b>Estimated Cost</b>	<b>Source of Cost Estimate</b>
<del>Closure</del>	<del>\$15,778,000</del>	<del>RWD (2004) - 60% Cost Estimate</del>
<del>Post-Closure Maintenance and Monitoring</del>	<del>\$561,000</del>	<del>RWD (2004) - 60% Cost Estimate</del>
<del>Corrective Actions for reasonably foreseeable releases</del>	<del>\$5,250,000</del>	<del>RWD (2004) - 60% Cost Estimate = Tasks 9, 10, 11, 12, 13, 20, 31, 32 and 33</del>
<del>Total =</del>	<del>\$21,589,000</del>	

- ~~The Port shall update the financial assurances, as necessary to ensure that adequate funds are available, to cover the cost of closure, post closure, monitoring and maintenance, and corrective actions in response to a reasonably foreseeable release from the offshore waste management unit at the former Campbell Shipyard.~~

- ~~18. Implementation of cleanup and abatement actions, including installation of an appropriate cap to isolate sediments containing residual shipyard waste, will cost approximately \$15,778,000; the Port has included approximately \$15,778,000 for this purpose in its capital improvement budget for FY 2003-2007 as approved by the Board of Port Commission by Resolution No. 2003-71. This provides satisfactory assurance that the Port will be able to bear the financial responsibility for closure.~~

- ~~19. Post-closure maintenance and monitoring at the *de facto* waste management/ residual waste containment cell will cost approximately \$18,700 per year; shipyard waste will continue to present a threat to water quality indefinitely; the present value of indefinite post-closure maintenance and monitoring amounts to \$561,000; in addition, it may cost up to \$500,000 to ensure cleanup and abatement for reasonably foreseeable circumstances that cause or threaten to cause discharges of waste from the containment cell to waters of the state in San Diego Bay in a manner that might cause or threaten to cause conditions of pollution or nuisance.~~

Waste Discharge Requirements for  
Sediment Cap, Campbell Shipyard**TENTATIVE**

~~18.20.~~ The discharge of pollutants into surface water and sediments could cause the long-term loss of designated beneficial uses of surface waters in San Diego Bay. The Former Campbell Shipyard Offshore Engineered Cap System, for isolation of environmental pollutants in San Diego Bay sediments at the former Campbell Shipyard, presents a major threat to water quality because the discharge of pollutants from residual shipyard waste into the water of San Diego Bay or sediments outside of the Engineered Cap System could cause conditions of pollution and contamination that could cause a short-term violation of water quality objectives and thereby creating an impairment of designated beneficial uses cause the long term loss of designated beneficial uses in San Diego Bay. The Offshore Engineered Cap System, shall be rated as qualifies in category ~~"I"~~ "2" under the Threat to Water Quality (TTWQ) category ~~"I"~~ in accordance with ranking criteria in 23 CCR §2200. The complexity (CPLX) ranking is based upon the type of facility. For of regulating the Offshore Engineered Cap System is comparable to the complexity of regulating Class III landfills, the which qualifies for complexity ranking is in category ~~"A."~~ "B" under the Complexity (CPLX) ranking criteria in 23 CCR § 2200.

~~1921.~~ The Port has prepared and certified a Final Supplemental Environmental Impact Report (EIR) dated October 2003 in accordance with the California Environmental Quality Act (CEQA) [Public Resources Code, Division 13, Chapter 3, Section 21000 *et seq.*]. ~~The engineered and habitat caps and the dredging operation, as approved by the Port, will not have a significant adverse effect on the environment. The EIR indicates that the proposed project will have some certain unavoidable significant environmental effects; however, the Port determined that such effects are considered acceptable because the benefits of the proposed project outweigh the unavoidable environmental effects. To mitigate these certain unavoidable significant environmental effects, the Port also adopted the provision of the Mitigation Monitoring and Reporting Program as conditions of approval for the proposed project.~~

20. The Regional Board, in establishing the requirements contained herein, considered factors, including but not limited to, the following:

- ~~\_\_\_\_\_ (a) \_\_\_\_\_ Past, present, and probable future beneficial uses of the waters under consideration;~~
- ~~\_\_\_\_\_ (b) \_\_\_\_\_ Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto;~~
- ~~\_\_\_\_\_ (c) \_\_\_\_\_ Water quality conditions that could reasonably be achieved through the coordinated control of all factors, which affect water quality in the area;~~
- ~~\_\_\_\_\_ (d) \_\_\_\_\_ Economic considerations;~~
- ~~(e) Beneficial uses to be protected and water quality objectives reasonably required for that purpose;~~



Waste Discharge Requirements for  
Sediment Cap, Campbell Shipyard**TENTATIVE**

~~(f) Other waste discharges; and~~

~~(g)(e) The need to prevent nuisance.~~

~~21. The Regional Board has considered all water resource related environmental factors associated with the discharge of waste as described in this Order.~~

~~22. California Code of Regulations (CCR), Title 27, § 20090(d) = for discharges of nonhazardous wastes, provides the following exemption from some provisions of "Title 27":~~

~~"Actions taken by or at the direction of public agencies to cleanup and abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment; provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to SWRCB-promulgated sections of Article 2, Subchapter 2, Chapter 3, Subdivision 1 of this division (§ 20200 et seq.); and further provided the remedial actions intended to contain wastes at the place of release shall implement the applicable SWRCB-promulgated provisions of this chapter to the extent feasible."~~

~~2322. The proposed actions to be conducted by the San Diego Unified Port District are exempt from the State Water Resources Control Board's prescriptive regulations governing discharges of solid waste to regulated waste management units because the San Diego Unified Port District is a public agency undertaking these actions to comply with Cleanup and Abatement Order No. 95-21 of the Regional Board, and the proposed actions are intended to cleanup and abate conditions of pollution or nuisance resulting from unauthorized releases of shipyard waste or pollutants to the environment. All wastes, pollutants, or contaminated materials removed from the former Campbell Shipyard site will be discharged at waste management units regulated by the Regional Board. The Prohibitions, Specifications, Provisions, and Monitoring and Reporting requirements of this Order implement the applicable regulatory requirements for containment of wastes at the place of release to the extent feasible by prescribing specifications for the design and construction of the cap, requirements for acceptable assurances of financial responsibility; and requirements for long term maintenance and monitoring of the engineered and habitat cap systems.~~

~~The proposed actions to be conducted by the San Diego Unified Port District are exempted from the prescriptive requirements of CCR Title 27. The applicable regulatory requirements for containment of wastes at the place of release are included in the Prohibitions, Specifications, Provisions, Monitoring and Reporting requirements of this Order. The applicable requirements include: specifications for the design and construction of the cap, obtaining acceptable financial assurances; implementation of long term monitoring and maintenance for the engineered and habitat cap systems.~~

~~2422. The Regional Board has notified the Port and all other known interested parties of the intent to prescribe waste discharge requirements as described in this Order.~~



~~2523~~. The Regional Board in a public meeting heard and considered all comments pertaining to the proposed discharge.

**IT IS HEREBY ORDERED**, that the Port of San Diego (hereinafter discharger) shall comply with the following:

**A. PROHIBITIONS**

1. Discharges of wastes in a manner and to lands, which have not been specifically described in the report of waste discharge and for which valid waste discharge requirements are not in force are prohibited.
2. Neither the treatment, storage nor disposal of waste shall create a condition of pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
  - (a) Runoff from debris and dredge material processing and dewatering areas beyond the limits of lands specifically designated for processing and dewatering, as described in the report of waste discharge referenced in the Findings of this Order, is prohibited.
  - (b) Dredging, storage or disposal of dredged material in a manner that causes a violation any Basin Plan prohibition; or any Basin Plan water quality objective established for San Diego Bay; or causes a violation any Bays and Estuaries Policy prohibition; or Bays and Estuaries Policy water quality principles and policies is prohibited.
3. The discharge of waste shall not adversely affect beneficial uses of the water resources as established in the Regional Board Basin Plan.
4. Odors, vectors, and other nuisances of waste origin beyond the limits of the site are prohibited.
5. Basin Plan prohibitions shall not be violated.
6. The discharge or placement of “surplus soils”, *e.g.*, stockpiled soils associated with the construction of the cap system, shall not cause pollution, contamination or nuisance or adversely affect beneficial uses of the ground or surface waters as established in the Basin Plan.
7. The discharge or placement of “dredge spoils”, *e.g.*, stockpiled dredge spoils associated with the dredging operations and/or construction of the cap system, shall not cause pollution, contamination or nuisance or adversely affect beneficial uses of the ground or surface waters as established in the Basin Plan.

8. The integrity of the engineered or habitat cap shall not be compromised by the installation of piles for the purpose of supporting engineered structures over the footprint of the cap system (i.e., engineered cap and/or habitat cap areas).

**B. DREDGING OPERATION SPECIFICATIONS**

1. VOLUME

The volume of material dredged for Campbell Shipyard project shall not exceed 35,900 cubic yards unless the discharger obtains revised waste discharge requirements for the proposed increase.

2. PROJECT IMPLEMENTATION

The project shall be implemented in accordance with the Findings of this Order unless the Regional Board approves an alternative measure and shall be conducted in conformance with the following conditions:

- (a) Sediment shall be removed in a manner that prevents or minimizes water quality degradation;
- (b) Dredge spoils shall not be deposited in a location that may cause significant adverse effects to aquatic life, fish, shellfish, or wildlife or may harm the beneficial uses of the receiving waters, or does not create maximum benefit to the people of the state; and
- (c) The project shall not cause significant adverse impacts upon a federal sanctuary, recreational area, or other waters of significant national importance.

3. DISPOSAL OF DREDGED AND FILL MATERIAL

All dredged and fill material shall be disposed of and/or deposited in conformance with federal, state and local laws and regulations. Prior to disposal of dredged material at any site on land that is not regulated pursuant to California Water Code Section 13263, the discharger shall submit a technical report for the review and approval of the Regional Board. The report must either demonstrate that material does not contain hazardous waste or soluble pollutants at concentrations in excess of the applicable Basin Plan surface and groundwater quality objectives for the hydrologic area of the proposed disposal site, and the material does not contain significant quantities of decomposable waste. The discharger must apply for Waste Discharge Requirements or a waiver thereof for discharges of dredge spoils to land at other than an existing classified waste management unit.

4. TEMPORARY STORAGE OF DREDGED MATERIAL

Prior to temporary storage of dredged material at any site that is not regulated pursuant to

California Water Code Section 13263, the discharger shall submit a technical report for the review and approval of the Regional Board. The report must either demonstrate that material does not contain hazardous waste or soluble pollutants at concentrations in excess of the applicable Basin Plan surface and groundwater quality objectives for the hydrologic area of the proposed disposal site, and the material does not contain significant quantities of decomposable waste; or demonstrate that the material and temporary storage of the material must comply with the requirements of the Regional Board Waiver Policy conditionally waiving adoption of Waste Discharge Requirements for Temporary Discharge of Specified Contaminated Soils: Dredge Spoils.

~~5. MONITORING AND REPORTING~~

~~The discharger shall comply with attached Monitoring and Reporting Program No. R9-2004-0295, and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. R9-2004-0295.~~

**C. CAP CONSTRUCTION AND MAINTENANCE SPECIFICATIONS**

1. CAP DESIGN AND CONSTRUCTION

The construction of the cap elements shall be as follows:

- (a) Engineered cap: The engineered cap is comprised of a geotextile overlain by two feet of sand for isolation of pollutants in existing sediments; a layer comprised of one foot of well graded gravelly aggregate material to act as a ~~filter~~filter layer between the overlying armor stone and the underlying sand, while also protecting against bioturbation, and a final layer of two feet of armoring stone, with a median diameter ( $d_{50}$ ) of 1 foot, is specified throughout the engineered cap area to protect against erosive forces that may be imposed upon the cap. Additional foundation support, in selected areas overlying unconsolidated bay sediments at the edge of the cap, will be strengthened by construction of a “dumped rock foundation.”
- (b) Habitat cap: The design of the habitat cap includes a ~~one-foot thick~~ basal layer of sand overlain by a geotextile, ~~a one foot layer of well graded coarse gravel aggregate layer to act as a protective layer for the geotextile;~~ layer and a final layer of two feet of poorly-graded sediments with grain sizes ranging from medium to coarse sand to provide a suitable substrate to support the overlying eelgrass habitat. The function of the geotextile layer is to help isolate any underlying environmental pollutants and protect against bioturbation into the underlying sediment; and two feet of poorly graded sediments with grain sizes of approximately 0.5 mm (medium to coarse sand) will be used to provide a suitable substrate for eelgrass.
- (c) Other structural elements associated with the habitat cap will include a

protective berm to provide additional lateral support to the habitat cap ~~and to reduce the erosion of the habitat substrate from propeller wash imposed by operators at the Tenth Avenue Marine Terminal. The Port may potentially add a wave reflector for additional protection against erosion.~~

2. MAINTENANCE SPECIFICATIONS

- (a) The cap shall be maintained such that ~~sediments in San Diego Bay containing pollutants in concentrations in sediment samples collected from the top of the cap and/or beneath the armor layer of the cap do not exceed excess of the "action Action Levels"; those listed in Finding No. 176 (dry weight) are contained below the main sand cap.~~
- (b) The main cap area (engineered cap) shall be maintained at a minimum thickness of five feet including a basal two-foot layer of sand, for contaminant isolation; one foot of well graded gravelly aggregate material to act as a ~~filter filter~~ layer between the overlying armor stone and the underlying sand, and two feet of armoring stone with a median diameter ( $d_{50}$ ) of 1-foot to protect against erosive forces that may be imposed upon the cap. Additional sand and/or gravel and/or armor stone shall be added to any area where the main sand cap thickness is less than four and a half feet to maintain a minimum five-foot total thickness. If visual inspections indicate the integrity of the armoring layer has been compromised, additional gravel and/or armoring stone shall be placed to raise the sand thickness back to five feet. The cap shall be repaired as expeditiously as practical.
- (c) The habitat cap area shall be maintained at a minimum thickness of ~~four~~ ~~three~~ feet including basal one foot layer of sand overlain by a geotextile ~~layer, a one foot layer of well graded coarse gravel aggregate layer to act as a protective layer for the geotextile,~~ and a final layer of two feet of poorly-graded sediments with grain sizes ranging from medium to coarse sand to provide a suitable substrate to support the overlying eelgrass habitat. Additional sand ~~and/or gravel~~ shall be added to any area where the habitat cap thickness is less than ~~three two~~ and a half feet to maintain a minimum ~~four~~ ~~three~~ foot total thickness. If visual inspections indicate the integrity of the habitat cap has been compromised, additional sand ~~and/or gravel~~ shall be placed to increase the habitat cap thickness back to ~~four three~~ feet. The cap shall be repaired as expeditiously as practical.
- (d) ~~If monitoring results indicate that additional sand/gravel is necessary, separate waste~~ Waste discharge requirements may be necessary for a discharge of sand, gravel, and/or armor stone at a volume greater than 5,000 cubic yards.
- (e) If any of the long-term monitoring elements described in the Monitoring

and Reporting Program suggest that the cap system has been breached, or in some way contaminated, additional sampling and repair work to the cap shall be conducted as necessary.

- (f) If pollutant concentrations are determined to exceed ~~threshold Action Level concentrations criteria~~ (pollutant concentrations as dry weight) in sediments, collected ~~during the cap monitoring program from the top of the cap and/or beneath the armor layer of the cap~~, ~~then additional investigation and/or repair work shall be initiated by the discharger~~. The “~~action Action levels~~ Levels” referenced in this Order shall be as follows:

Contaminants of Concern	Concentration (mg/kg by dry weight)
Copper	264
Lead	88
Zinc	410
Total Polyaromatic Hydrocarbons (TPAHs)	3.47
Polychlorinated biphenyls (PCBs)	0.11
Total Petroleum Hydrocarbons (TPH)	<14
Tributyltin (TBT)	0.121

Sediment concentrations of COCs above the “action levels” referenced above will ~~cause the Discharger to undertake a study to evaluate the cause(s) of failure then proceed to develop and implement a corrective action plan~~. ~~trigger the need for the discharger to perform further work (investigation and/or corrective action) as specified in the Monitoring and Reporting Program.~~

- (g) ~~If monitoring results from the top of the engineered and/or habitat caps indicate that concentrations of contaminants of concern exceed action levels, the~~ The discharger shall ~~undertake storm drain/outfall sampling implement the contingency actions~~ described in Section F.3.1 of Monitoring and Reporting Program No. R9-2004-0295. ~~The discharger shall report results to the Regional Board as required and develop recommendations for further action if the results indicate that upstream catch basin sediment exceeds the action levels identified in Specification No. C.2(f) of this Order.~~
- (h) If the results from sediment sampling, as described in Sections F.1 or F.2 of Monitoring and Reporting Program R9-2004-0295, indicates a breakthrough of waste constituents/pollutants from the sediment below the engineered cap ~~or an exceedance of contaminant concentrations in the top of the sediment cap above the Action Levels listed in Maintenance Specification C.2(f) of this Order; repair and/or investigation the~~

~~discharger shall initiate an investigation shall begin within 72 hours of the determination. A corrective action plan, if required, shall be submitted to the Regional Board within 45 days of discovering the exceedance. The minimum pollutant concentrations in the sediment, or action levels, requiring cap repair and/or investigation are as specified in Specification No. C-2(f).~~ The Regional Board may also require additional repair(s) and/or investigation as reasonably necessary.

- (i) The structural integrity of the elements designed to protect or enhance the stability of the cap (e.g., containment berm, dumped rock foundations, rock revetment) shall be maintained as necessary to correct - the effect of settlement, erosion, vessels, or other adverse factors that threaten structural integrity of the cap (i.e., engineered or habitat cap). If visual inspections indicate unacceptable erosion, settlement, or other damage to the engineered protection or cap stability elements, the discharger shall take actions to correct the deficiency(ies) to return affected design elements to their design dimensions and functional effectiveness.
- (j) All navigational warning signs/buoys shall be maintained in good condition. The anchoring shall be stable and the signs shall be intact, legible, and firmly attached to the buoys.
- (k) At least two permanent surveying monuments shall be maintained from which the location and elevation of the engineered cap and containment berm can be determined throughout the post-closure maintenance period.
- (l) Eelgrass shall be planted and maintained in accordance with the procedures contained in the Southern California Eelgrass Mitigation Policy (National Marine Fisheries Service).
- ~~(m) Storm water discharges from Municipal Separate Storm Sewer System (MS4s), including storm drains, shall not result in erosion or scour of the cap; or deposition of pollutants upon the surface of the cap.~~

#### **D. SECTION 401 WATER QUALITY CERTIFICATION**

The following three standard conditions apply to all certification actions, except as noted under Number 3 for denials:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the California Water Code and Section 3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal

Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR Subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. The validity of any non-denial certification action (Actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR Section 3833, unless otherwise stated in writing by the certifying agency.

In addition to the three standard conditions, the Discharger shall satisfy the following:

4. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.
5. In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate, provided that the burden, including costs, of the reports shall be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
6. Prior to the start of dredging, the Discharger shall conduct surveys within the project area for the presence/absence of *Caulerpa taxifolia* (Caulerpa) in accordance with the Caulerpa Control Protocol (version 1.2b, adopted January 31, 2003). If Caulerpa is detected, the Discharger may not initiate the dredging project until Caulerpa has been successfully eradicated.

## **E. STANDARD PROVISIONS**

### **1. DUTY TO COMPLY**

The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised waste discharge requirements.

### **2. ENTRY AND INSPECTION**

The discharger shall allow the Regional Board, or an authorized representative



upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

3. *PROPER OPERATION AND MAINTENANCE*

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

4. *CIVIL MONETARY REMEDIES*

The California Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to a civil monetary remedy of up to 20 dollars per gallon of waste discharged or, if a cleanup and abatement order is issued, up to 15,000 dollars per day of violation or some combination thereof.

5. *PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS*

The California Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil liability of up to 5,000 dollars for each day in which the violation occurs.

6. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance that may endanger health or the environment. Any such information shall be provided orally to the Regional Board within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Regional Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

7. CORRECTIVE ACTION

The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

8. COMPLIANCE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

9. HAZARDOUS RELEASES

Except for a discharge which is compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any

discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control Plan.

10. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan.

11. FINANCIAL ASSURANCES FOR CLOSURE, POST-CLOSURE AND CORRECTIVE ACTION

~~(a) Port shall provide assurances of financial responsibility for post-closure maintenance and monitoring in an amount of not less than \$18,700 per year indefinitely, or for as long as the waste in the containment cell poses a threat of pollution or nuisance to waters of the state.~~

~~(b) Port shall provide assurances of financial responsibility for reasonably foreseeable cleanup and abatement associated with the containment cell in an amount of not less than \$500,000.~~

~~Within one year of the effective date of this Order, the discharger shall establish and maintain adequate and acceptable assurances of financial responsibility for closure, post-closure monitoring and maintenance, or implementation of corrective action in response to a release of waste constituents from the waste management units. The discharger shall ensure that their selected financial assurance instrument meets the following minimum criteria:~~

~~(a) The financial assurance instrument makes funds directly available to the Regional Board upon a finding by the Regional Board that the discharger has failed or refuses to implement closure, post-closure monitoring and maintenance, or conduct corrective actions in response to a release of waste constituents from the waste management unit.~~

~~(b) The amount of the financial assurances are regularly updated to ensure that adequate funds can be made directly available to the Regional Board for implementation of closure, post-closure monitoring and maintenance, or corrective action.~~

**F. REPORTING AND RECORDKEEPING REQUIREMENTS**

1. PERMIT REPOSITORY

A copy of this Order shall be maintained at the discharger's administrative offices and shall be available to operating personnel at all times.

2. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample,

measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

3. GENERAL REPORTING REQUIREMENT

The discharger shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

4. PERMIT REVISION

This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- (a) Violation of any terms or conditions of this Order;
- (b) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or
- (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the discharger for the modification, revocation and

reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

5. *CHANGE IN DISCHARGE*

The discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:

- (a) Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste.)
- (b) Change in the disposal area from that described in the findings of this Order.
- (c) Increase in volume beyond that specified in this Order.
- (d) Other circumstances that result in a material change in character, amount, or location of the waste discharge.
- (e) Any planned change in the regulated facility or activity that may result in noncompliance with this Order.

6. *CHANGE IN OWNERSHIP*

This Order is not transferrable to any person except after notice to the Regional Board. The discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the California Water Code.

7. *INCOMPLETE REPORTS*

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

8. *REPORT DECLARATION*

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

- (a) The Report of Waste Discharge shall be signed as follows:
  - (1) For a corporation - by a principal executive officer of at least the level of vice-president.
  - (2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
  - (3) For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
- (b) All other reports required by this Order and other information required by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
  - (1) The authorization is made in writing by a person described in paragraph (a) of this provision;
  - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
  - (3) The written authorization is submitted to the Regional Board.

(c) Changes to Authorization - If an authorization under paragraph (b) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this provision must be submitted to the Regional Board prior to or together with any reports or information to be signed by an authorized representative.

(c)(d) Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are

~~significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."~~~~I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."~~

9. REGIONAL BOARD ADDRESS

The discharger shall submit reports required under this Order, or other information required by the Regional Board, to:

Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340  
TEL: 858-467-2952  
FAX: 858-571-6972

10. MONITORING AND REPORTING

~~The discharger shall comply with attached Monitoring and Reporting Program No. R9-2004-0295, and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. R9-2004-0295.~~

**G. NOTIFICATIONS**

1. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state or local laws, nor create a vested right for the discharger to continue the waste discharge.

2. U.S. EPA REVIEW

These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.



3. SEVERABILITY

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

4. ORDER NO. 2000-48

This Order supersedes and rescinds Order No. 2000-48. This Order becomes effective on the date of adoption by the Regional Board.

5. IDENTIFY DOCUMENTS USING CODE NUMBER

In order to assist the Regional Board in the processing of correspondence and reports submitted in compliance with these Waste Discharge Requirements, the Discharger(s) shall include the following code number in the header or subject line portion of all correspondence or reports submitted to the Regional Board: LD: 06-0990.02.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on October 13, 2004.

**TENTATIVE**

---

John H. Robertus  
Executive Officer